SEQUENCE LISTING

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<120> Heteroclitic Analogs and Related Methods

<130> 2060.009PC05

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<170> PatentIn version 3.2

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<210> 25
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<400> 34

Thr Pro Pro Ala Tyr Arg Pro Pro Asn Ala Pro Ile Leu
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<220>
<223> Synthetic peptide derived from Hepatitis B Virus

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<400> 53

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Gly Leu Ser Arg Tyr Val Pro Arg Leu
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Leu Leu Asp Arg Asp Ser Phe Glu Val
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35 40 45

Lys Glu Val Leu Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly
50 55 60

Tyr Ser Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Ile
65 70 75 80

Gly Tyr Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser

85 90 95

Gly Arg Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile
100 105 110

Ile Gln Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp
115 120 125

Leu Val Asn Glu Glu Ala Thr Gly Gln Phe Arg Val Tyr Pro Glu Leu
130 135 140

Pro Lys Pro Ser Ile Ser Ser Asn Asn Ser Lys Pro Val Glu Asp Lys
145 150 155 160

Asp Ala Val Ala Phe Thr Cys Glu Pro Glu Thr Gln Asp Ala Thr Tyr
165 170 175

Leu Trp Trp Val Asn Asn Gln Ser Leu Pro Val Ser Pro Arg Leu Gln
180 185 190

Leu Ser Asn Gly Asn Arg Thr Leu Thr Leu Phe Asn Val Thr Arg Asn
195 200 205

Asp Thr Ala Ser Tyr Lys Cys Glu Thr Gln Asn Pro Val Ser Ala Arg
210 215 220

Arg Ser Asp Ser Val Ile Leu Asn Val Leu Tyr Gly Pro Asp Ala Pro
225 230 235 240

Thr Ile Ser Pro Leu Asn Thr Ser Tyr Arg Ser Gly Glu Asn Leu Asn
245 250 255

Leu Ser Cys His Ala Ala Ser Asn Pro Pro Ala Gln Tyr Ser Trp Phe
260 265 270

Val Asn Gly Thr Phe Gln Gln Ser Thr Gln Glu Leu Phe Ile Pro Asn
275 280 285

Ile Thr Val Asn Asn Ser Gly Ser Tyr Thr Cys Gln Ala His Asn Ser
290 295 300

Asp Thr Gly Leu Asn Arg Thr Thr Val Thr Thr Ile Thr Val Tyr Ala
305 310 315 320

Glu Pro Pro Lys Pro Phe Ile Thr Ser Asn Asn Ser Asn Pro Val Glu
325 330 335

Asp Glu Asp Ala Val Ala Leu Thr Cys Glu Pro Glu Ile Gln Asn Thr
340 345 350

Thr Tyr Leu Trp Trp Val Ile Ile Arg Ser Leu Pro Val Ser Pro Arg
355 360 365

Leu Gln Leu Ser Asn Asp Asn Arg Thr Leu Thr Leu Leu Ser Val Thr
370 375 380

Arg Asn Asp Val Gly Pro Tyr Glu Cys Gly Ile Gln Asn Glu Leu Ser
385 390 395 400

Val Asp His Ser Asp Pro Val Ile Leu Asn Val Leu Tyr Gly Pro Asp
405 410 415

Asp Pro Thr Ile Ser Pro Ser Tyr Thr Tyr Tyr Arg Pro Gly Val Asn
420 425 430

Leu Ser Leu Ser Cys His Ala Ala Ser Asn Pro Pro Ala Gln Tyr Ser
435 440 445

Trp Leu Ile Asp Gly Asn Ile Gln Gln His Thr Gln Glu Leu Phe Ile
450 455 460

Ser Asn Ile Thr Glu Lys Asn Ser Gly Leu Tyr Thr Cys Gln Ala Asn
465 470 475 480

Asn Ser Ala Ser Gly His Ser Arg Thr Thr Val Lys Thr Ile Thr Val
485 490 495

Ser Ala Glu Leu Pro Lys Pro Ser Ile Ser Ser Asn Asn Ser Lys Pro
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Val Glu Asp Lys Asp Ala Val Ala Phe Thr Cys Glu Pro Glu Ala Gln
515 520 525

Asn Thr Thr Tyr Leu Trp Trp Val Asn Gly Gln Ser Leu Pro Val Ser
530 535 540

Pro Arg Leu Gln Leu Ser Asn Gly Asn Arg Thr Leu Thr Leu Phe Asn
545 550 555 560

Val Thr Arg Asn Asp Ala Arg Ala Tyr Val Cys Gly Ile Gln Asn Ser
565 570 575

Val Ser Ala Asn Arg Ser Asp Pro Val Thr Leu Asp Val Leu Tyr Gly
580 585 590

Pro Asp Thr Pro Ile Ile Ser Pro Pro Asp Ser Ser Tyr Leu Ser Gly
595 600 605

Ala Asn Leu Asn Leu Ser Cys His Ser Ala Ser Asn Pro Ser Pro Gln
610 615 620

Tyr Ser Trp Arg Ile Asn Gly Ile Pro Gln Gln His Thr Gln Val Leu
625 630 635 640

Leu Ile Ala Lys Ile Gln Pro Asn Asn Asn Gly Thr Tyr Ala Cys Phe
645 650 655

Val Ser Asn Leu Ala Thr Gly Arg Asn Asn Ser Ile Val Lys Ser Ile
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Thr Val Ser Ala Ser Gly Thr Ser Pro Gly Leu Ser Ala Gly Ala Thr
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35 40 45

Thr Leu Gly Glu Val Pro Ala Ala Asp Ser Pro Ser Pro Pro His Ser
50 55 60

Pro Gln Gly Ala Ser Ser Phe Ser Thr Thr Ile Asn Tyr Thr Leu Trp
65 70 75 80

Arg Gln Ser Asp Glu Gly Ser Ser Asn Gln Glu Glu Glu Gly Pro Arg
85 90 95

Met Phe Pro Asp Leu Glu Ser Glu Phe Gln Ala Ala Ile Ser Arg Lys
100 105 110

Met Val Glu Leu Val His Phe Leu Leu Leu Lys Tyr Arg Ala Arg Glu
115 120 125

Pro Val Thr Lys Ala Glu Met Leu Glu Ser Val Leu Arg Asn Cys Gln
130 135 140

Asp Phe Phe Pro Val Ile Phe Ser Lys Ala Ser Glu Tyr Leu Gln Leu
145 150 155 160

Val Phe Gly Ile Glu Val Val Glu Val Val Pro Ile Ser His Leu Tyr
165 170 175

Ile Leu Val Thr Cys Leu Gly Leu Ser Tyr Asp Gly Leu Leu Gly Asp
180 185 190

Asn Gln Val Met Pro Lys Thr Gly Leu Leu Ile Ile Val Leu Ala Ile
195 200 205

Ile Ala Ile Glu Gly Asp Cys Ala Pro Glu Glu Lys Ile Trp Glu Glu
210 215 220

Leu Ser Met Leu Glu Val Phe Glu Gly Arg Glu Asp Ser Val Phe Ala
225 230 235 240

His Pro Arg Lys Leu Leu Met Gln Asp Leu Val Gln Glu Asn Tyr Leu
245 250 255

Glu Tyr Arg Gln Val Pro Gly Ser Asp Pro Ala Cys Tyr Glu Phe Leu
260 265 270

Trp Gly Pro Arg Ala Leu Ile Glu Thr Ser Tyr Val Lys Val Leu His
275 280 285

His Thr Leu Lys Ile Gly Gly Glu Pro His Ile Ser Tyr Pro Pro Leu
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His Glu Arg Ala Leu Arg Glu Gly Glu Glu
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Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp
65                  70                  75                  80

Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp
                85                  90                  95

Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala
            100                 105                 110

Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln
        115                 120                 125

His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val
    130                 135                 140

Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys
145                 150                 155                 160

Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro
                165                 170                 175

Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys
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Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu
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Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys
    210                 215                 220

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                245                 250                 255

Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly
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260 265 270

Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile
275 280 285

Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu
290 295 300

Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp
305 310 315 320

Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser
325 330 335

Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly
340 345 350

Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val
355 360 365

Leu Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys
370 375 380

Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu
385 390 395 400

Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys
405 410 415

Glu Leu Phe Lys Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu
420 425 430

Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val
435 440 445

Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His
450 455 460

Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val
465 470 475 480

Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg
485 490 495

Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe
500 505 510

Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala
515 520 525

Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu
530 535 540

Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys
545 550 555 560

Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala
565 570 575

Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe
580 585 590

Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly
595 600 605

Leu

<210> 71
<211> 212
<212> PRT
<213> Hepatitis B virus

<400> 71

Met Gln Leu Phe His Leu Cys Leu Ile Ile Ser Cys Ser Cys Pro Thr
1 5 10 15

Val Gln Ala Ser Lys Leu Cys Leu Gly Trp Leu Trp Gly Met Asp Ile
20 25 30

Asp Pro Tyr Lys Glu Phe Gly Ala Thr Val Glu Leu Leu Ser Phe Leu
35 40 45

Pro Ser Asp Phe Phe Pro Ser Val Arg Asp Leu Leu Asp Thr Ala Ser
50 55 60

Ala Leu Tyr Arg Glu Ala Leu Glu Ser Pro Glu His Cys Ser Pro His
65 70 75 80

His Thr Ala Leu Arg Gln Ala Ile Leu Cys Trp Gly Glu Leu Met Thr
85 90 95

Leu Ala Thr Trp Val Gly Val Asn Leu Glu Asp Pro Ala Ser Arg Asp
100 105 110

Leu Val Val Ser Tyr Val Asn Thr Asn Met Gly Leu Lys Phe Arg Gln
115 120 125

Leu Leu Trp Phe His Ile Ser Cys Leu Thr Phe Gly Arg Glu Thr Val
130 135 140

Ile Glu Tyr Leu Val Ser Phe Gly Val Trp Ile Arg Thr Pro Pro Ala
145 150 155 160

Tyr Arg Pro Pro Asn Ala Pro Ile Leu Ser Thr Leu Pro Glu Thr Thr
165 170 175

Val Val Arg Arg Arg Gly Arg Ser Pro Arg Arg Arg Thr Pro Ser Pro
180 185 190

Arg Arg Arg Arg Ser Gln Ser Pro Arg Arg Arg Arg Ser Gln Ser Arg
195 200 205

Glu Ser Gln Cys
210

<210> 72
<211> 2768
<212> PRT
<213> Homo sapiens

<220>
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<222> (734)..(734)
<223> Xaa can be any naturally occurring amino acid

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<222> (1028)..(1028)
<223> Xaa can be any naturally occurring amino acid

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<222> (2501)..(2501)
<223> Xaa can be any naturally occurring amino acid

<400> 72

Met Ala Leu Val Leu Glu Ile Phe Thr Leu Leu Ala Ser Ile Cys Trp
1 5 10 15

Val Ser Ala Asn Ile Phe Glu Tyr Gln Val Asp Ala Gln Pro Leu Arg
20 25 30

Pro Cys Glu Leu Gln Arg Glu Thr Ala Phe Leu Lys Gln Ala Asp Tyr
35 40 45

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Val Pro Gln Cys Ala Glu Asp Gly Ser Phe Gln Thr Val Gln Cys Gln
    50                  55                  60

Asn Asp Gly Arg Ser Cys Trp Cys Val Gly Ala Asn Gly Ser Glu Val
65                  70                  75                  80

Leu Gly Ser Arg Gln Pro Gly Arg Pro Val Ala Cys Leu Ser Phe Cys
                85                  90                  95

Gln Leu Gln Lys Gln Gln Ile Leu Leu Ser Gly Tyr Ile Asn Ser Thr
            100                 105                 110

Asp Thr Ser Tyr Leu Pro Gln Cys Gln Asp Ser Gly Asp Tyr Ala Pro
        115                 120                 125

Val Gln Cys Asp Val Gln Gln Val Gln Cys Trp Cys Val Asp Ala Glu
    130                 135                 140

Gly Met Glu Val Tyr Gly Thr Arg Gln Leu Gly Arg Pro Lys Arg Cys
145                 150                 155                 160

Pro Arg Ser Cys Glu Ile Arg Asn Arg Arg Leu Leu His Gly Val Gly
                165                 170                 175

Asp Lys Ser Pro Pro Gln Cys Ser Ala Glu Gly Glu Phe Met Pro Val
            180                 185                 190

Gln Cys Lys Phe Val Asn Thr Thr Asp Met Met Ile Phe Asp Leu Val
        195                 200                 205

His Ser Tyr Asn Arg Phe Pro Asp Ala Phe Val Thr Phe Ser Ser Phe
    210                 215                 220

Gln Arg Arg Phe Pro Glu Val Ser Gly Tyr Cys His Cys Ala Asp Ser
225                 230                 235                 240

Gln Gly Arg Glu Leu Ala Glu Thr Gly Leu Glu Leu Leu Leu Asp Glu
                245                 250                 255

Ile Tyr Asp Thr Ile Phe Ala Gly Leu Asp Leu Pro Ser Thr Phe Thr
            260                 265                 270

Glu Thr Thr Leu Tyr Arg Ile Leu Gln Arg Arg Phe Leu Ala Val Gln
        275                 280                 285

Ser Val Ile Ser Gly Arg Phe Arg Cys Pro Thr Lys Cys Glu Val Glu
    290                 295                 300
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Arg Phe Thr Ala Thr Ser Phe Gly His Pro Tyr Val Pro Ser Cys Arg
305 310 315 320

Arg Asn Gly Asp Tyr Gln Ala Val Gln Cys Gln Thr Glu Gly Pro Cys
325 330 335

Trp Cys Val Asp Ala Gln Gly Lys Glu Met His Gly Thr Arg Gln Gln
340 345 350

Gly Glu Pro Pro Ser Cys Ala Glu Gly Gln Ser Cys Ala Ser Glu Arg
355 360 365

Gln Gln Ala Leu Ser Arg Leu Tyr Phe Gly Thr Ser Gly Tyr Phe Ser
370 375 380

Gln His Asp Leu Phe Ser Ser Pro Glu Lys Arg Trp Ala Ser Pro Arg
385 390 395 400

Val Ala Arg Phe Ala Thr Ser Cys Pro Pro Thr Ile Lys Glu Leu Phe
405 410 415

Val Asp Ser Gly Leu Leu Arg Pro Met Val Glu Gly Gln Ser Gln Gln
420 425 430

Phe Ser Val Ser Glu Asn Leu Leu Lys Glu Ala Ile Arg Ala Ile Phe
435 440 445

Pro Ser Arg Gly Leu Ala Arg Leu Ala Leu Gln Phe Thr Thr Asn Pro
450 455 460

Lys Arg Leu Gln Gln Asn Leu Phe Gly Gly Lys Phe Leu Val Asn Val
465 470 475 480

Gly Gln Phe Asn Leu Ser Gly Ala Leu Gly Thr Arg Gly Thr Phe Asn
485 490 495

Phe Ser Gln Phe Phe Gln Gln Leu Gly Leu Ala Ser Phe Leu Asn Gly
500 505 510

Gly Arg Gln Glu Asp Leu Ala Lys Pro Leu Ser Val Gly Leu Asp Ser
515 520 525

Asn Ser Ser Thr Gly Thr Pro Glu Ala Ala Lys Lys Asp Gly Thr Met
530 535 540

Asn Lys Pro Thr Val Gly Ser Phe Gly Phe Glu Ile Asn Leu Gln Glu

545 550 555 560

Asn Gln Asn Ala Leu Lys Phe Leu Ala Ser Leu Leu Glu Leu Pro Glu
565 570 575

Phe Leu Leu Phe Leu Gln His Ala Ile Ser Val Pro Glu Asp Val Ala
580 585 590

Arg Asp Leu Gly Asp Val Met Glu Thr Val Leu Ser Ser Gln Thr Cys
595 600 605

Glu Gln Thr Pro Glu Arg Leu Phe Val Pro Ser Cys Thr Thr Glu Gly
610 615 620

Ser Tyr Glu Asp Val Gln Cys Phe Ser Gly Glu Cys Trp Cys Val Asn
625 630 635 640

Ser Trp Gly Lys Glu Leu Pro Gly Ser Arg Val Arg Gly Gly Gln Pro
645 650 655

Arg Cys Pro Thr Asp Cys Glu Lys Gln Arg Ala Arg Met Gln Ser Leu
660 665 670

Met Gly Ser Gln Pro Ala Gly Ser Thr Leu Phe Val Pro Ala Cys Thr
675 680 685

Ser Glu Gly His Phe Leu Pro Val Gln Cys Phe Asn Ser Glu Cys Tyr
690 695 700

Cys Val Asp Ala Glu Gly Gln Ala Ile Pro Gly Thr Arg Ser Ala Ile
705 710 715 720

Gly Lys Pro Lys Lys Cys Pro Thr Pro Cys Gln Leu Gln Xaa Glu Gln
725 730 735

Ala Phe Leu Arg Thr Val Gln Ala Leu Leu Ser Asn Ser Ser Met Leu
740 745 750

Pro Thr Leu Ser Asp Thr Tyr Ile Pro Gln Cys Ser Thr Asp Gly Gln
755 760 765

Trp Arg Gln Val Gln Cys Asn Gly Pro Pro Glu Gln Val Phe Glu Leu
770 775 780

Tyr Gln Arg Trp Glu Ala Gln Asn Lys Gly Gln Asp Leu Thr Pro Ala
785 790 795 800

Lys Leu Leu Val Lys Ile Met Ser Tyr Arg Glu Ala Ala Ser Gly Asn
805 810 815

Phe Ser Leu Phe Ile Gln Ser Leu Tyr Glu Ala Gly Gln Gln Asp Val
820 825 830

Phe Pro Val Leu Ser Gln Tyr Pro Ser Leu Gln Asp Val Pro Leu Ala
835 840 845

Ala Leu Glu Gly Lys Arg Pro Gln Pro Arg Glu Asn Ile Leu Leu Glu
850 855 860

Pro Tyr Leu Phe Trp Gln Ile Leu Asn Gly Gln Leu Ser Gln Tyr Pro
865 870 875 880

Gly Ser Tyr Ser Asp Phe Ser Thr Pro Leu Ala His Phe Asp Leu Arg
885 890 895

Asn Cys Trp Cys Val Asp Glu Ala Gly Gln Glu Leu Glu Gly Met Arg
900 905 910

Ser Glu Pro Ser Lys Leu Pro Thr Cys Pro Gly Ser Cys Glu Glu Ala
915 920 925

Lys Leu Arg Val Leu Gln Phe Ile Arg Glu Thr Glu Glu Ile Val Ser
930 935 940

Ala Ser Asn Ser Ser Arg Phe Pro Leu Gly Glu Ser Phe Leu Val Ala
945 950 955 960

Lys Gly Ile Arg Leu Arg Asn Glu Asp Leu Gly Leu Pro Pro Leu Phe
965 970 975

Pro Pro Arg Glu Ala Phe Ala Glu Gln Phe Leu Arg Gly Ser Asp Tyr
980 985 990

Ala Ile Arg Leu Ala Ala Gln Ser Thr Leu Ser Phe Tyr Gln Arg Arg
995 1000 1005

Arg Phe Ser Pro Asp Asp Ser Ala Gly Ala Ser Ala Leu Leu Arg
1010 1015 1020

Ser Gly Pro Tyr Xaa Pro Gln Cys Asp Ala Phe Gly Ser Trp Glu
1025 1030 1035

Pro Val Gln Cys His Ala Gly Thr Gly His Cys Trp Cys Val Asp
1040 1045 1050

Glu Lys Gly Gly Phe Ile Pro Gly Ser Leu Thr Ala Arg Ser Leu
1055 1060 1065

Gln Ile Pro Gln Cys Pro Thr Thr Cys Glu Lys Ser Arg Thr Ser
1070 1075 1080

Gly Leu Leu Ser Ser Trp Lys Gln Ala Arg Ser Gln Glu Asn Pro
1085 1090 1095

Ser Pro Lys Asp Leu Phe Val Pro Ala Cys Leu Glu Thr Gly Glu
1100 1105 1110

Tyr Ala Arg Leu Gln Ala Ser Gly Ala Gly Thr Trp Cys Val Asp
1115 1120 1125

Pro Ala Ser Gly Glu Glu Leu Arg Pro Gly Ser Ser Ser Ser Ala
1130 1135 1140

Gln Cys Pro Ser Leu Cys Asn Val Leu Lys Ser Gly Val Leu Ser
1145 1150 1155

Arg Arg Val Ser Pro Gly Tyr Val Pro Ala Cys Arg Ala Glu Asp
1160 1165 1170

Gly Gly Phe Ser Pro Val Gln Cys Asp Gln Ala Gln Gly Ser Cys
1175 1180 1185

Trp Cys Val Met Asp Ser Gly Glu Glu Val Pro Gly Thr Arg Val
1190 1195 1200

Thr Gly Gly Gln Pro Ala Cys Glu Ser Pro Arg Cys Pro Leu Pro
1205 1210 1215

Phe Asn Ala Ser Glu Val Val Gly Gly Thr Ile Leu Cys Glu Thr
1220 1225 1230

Ile Ser Gly Pro Thr Gly Ser Ala Met Gln Gln Cys Gln Leu Leu
1235 1240 1245

Cys Arg Gln Gly Ser Trp Ser Val Phe Pro Pro Gly Pro Leu Ile
1250 1255 1260

Cys Ser Leu Glu Ser Gly Arg Trp Glu Ser Gln Leu Pro Gln Pro
1265 1270 1275

Arg Ala Cys Gln Arg Pro Gln Leu Trp Gln Thr Ile Gln Thr Gln

1280 1285 1290

Gly His Phe Gln Leu Gln Leu Pro Pro Gly Lys Met Cys Ser Ala
1295 1300 1305

Asp Tyr Ala Gly Leu Leu Gln Thr Phe Gln Val Phe Ile Leu Asp
1310 1315 1320

Glu Leu Thr Ala Arg Gly Phe Cys Gln Ile Gln Val Lys Thr Phe
1325 1330 1335

Gly Thr Leu Val Ser Ile Pro Val Cys Asn Asn Ser Ser Val Gln
1340 1345 1350

Val Gly Cys Leu Thr Arg Glu Arg Leu Gly Val Asn Val Thr Trp
1355 1360 1365

Lys Ser Arg Leu Glu Asp Ile Pro Val Ala Ser Leu Pro Asp Leu
1370 1375 1380

His Asp Ile Glu Arg Ala Leu Val Gly Lys Asp Leu Leu Gly Arg
1385 1390 1395

Phe Thr Asp Leu Ile Gln Ser Gly Ser Phe Gln Leu His Leu Asp
1400 1405 1410

Ser Lys Thr Phe Pro Ala Glu Thr Ile Arg Phe Leu Gln Gly Asp
1415 1420 1425

His Phe Gly Thr Ser Pro Arg Thr Trp Phe Gly Cys Ser Glu Gly
1430 1435 1440

Phe Tyr Gln Val Leu Thr Ser Glu Ala Ser Gln Asp Gly Leu Gly
1445 1450 1455

Cys Val Lys Cys Pro Glu Gly Ser Tyr Ser Gln Asp Glu Glu Cys
1460 1465 1470

Ile Pro Cys Pro Val Gly Phe Tyr Gln Glu Gln Ala Gly Ser Leu
1475 1480 1485

Ala Cys Val Pro Cys Pro Val Gly Arg Thr Thr Ile Ser Ala Gly
1490 1495 1500

Ala Phe Ser Gln Thr His Cys Val Thr Asp Cys Gln Arg Asn Glu
1505 1510 1515

Ala Gly Leu Gln Cys Asp Gln Asn Gly Gln Tyr Arg Ala Ser Gln
1520 1525 1530

Lys Asp Arg Gly Ser Gly Lys Ala Phe Cys Val Asp Gly Glu Gly
1535 1540 1545

Arg Arg Leu Pro Trp Trp Glu Thr Glu Ala Pro Leu Glu Asp Ser
1550 1555 1560

Gln Cys Leu Met Met Gln Lys Phe Glu Lys Val Pro Glu Ser Lys
1565 1570 1575

Val Ile Phe Asp Ala Asn Ala Pro Val Ala Val Arg Ser Lys Val
1580 1585 1590

Pro Asp Ser Glu Phe Pro Val Met Gln Cys Leu Thr Asp Cys Thr
1595 1600 1605

Glu Asp Glu Ala Cys Ser Phe Phe Thr Val Ser Thr Thr Glu Pro
1610 1615 1620

Glu Ile Ser Cys Asp Phe Tyr Ala Trp Thr Ser Asp Asn Val Ala
1625 1630 1635

Cys Met Thr Ser Asp Gln Lys Arg Asp Ala Leu Gly Asn Ser Lys
1640 1645 1650

Ala Thr Ser Phe Gly Ser Leu Arg Cys Gln Val Lys Val Arg Ser
1655 1660 1665

His Gly Gln Asp Ser Pro Ala Val Tyr Leu Lys Lys Gly Gln Gly
1670 1675 1680

Ser Thr Thr Thr Leu Gln Lys Arg Phe Glu Pro Thr Gly Phe Gln
1685 1690 1695

Asn Met Leu Ser Gly Leu Tyr Asn Pro Ile Val Phe Ser Ala Ser
1700 1705 1710

Gly Ala Asn Leu Thr Asp Ala His Leu Phe Cys Leu Leu Ala Cys
1715 1720 1725

Asp Arg Asp Leu Cys Cys Asp Gly Phe Val Leu Thr Gln Val Gln
1730 1735 1740

Gly Gly Ala Ile Ile Cys Gly Leu Leu Ser Ser Pro Ser Val Leu
1745 1750 1755

Leu Cys Asn Val Lys Asp Trp Met Asp Pro Ser Glu Ala Trp Ala
1760 1765 1770

Asn Ala Thr Cys Pro Gly Val Thr Tyr Asp Gln Glu Ser His Gln
1775 1780 1785

Val Ile Leu Arg Leu Gly Asp Gln Glu Phe Ile Lys Ser Leu Thr
1790 1795 1800

Pro Leu Glu Gly Thr Gln Asp Thr Phe Thr Asn Phe Gln Gln Val
1805 1810 1815

Tyr Leu Trp Lys Asp Ser Asp Met Gly Ser Arg Pro Glu Ser Met
1820 1825 1830

Gly Cys Arg Lys Asx Thr Val Pro Arg Pro Ala Ser Pro Thr Glu
1835 1840 1845

Ala Gly Leu Thr Thr Glu Leu Phe Ser Pro Val Asp Leu Asn Gln
1850 1855 1860

Val Ile Val Asn Gly Asn Gln Ser Leu Ser Ser Gln Lys His Trp
1865 1870 1875

Leu Phe Lys His Leu Phe Ser Ala Gln Gln Ala Asn Leu Trp Cys
1880 1885 1890

Leu Ser Arg Cys Val Gln Glu His Ser Phe Cys Gln Leu Ala Glu
1895 1900 1905

Ile Thr Glu Ser Ala Ser Leu Tyr Phe Thr Cys Thr Leu Tyr Pro
1910 1915 1920

Glu Ala Gln Val Cys Asp Asp Ile Met Glu Ser Asn Ala Gln Gly
1925 1930 1935

Cys Arg Leu Ile Leu Pro Gln Met Pro Lys Ala Leu Phe Arg Lys
1940 1945 1950

Lys Val Ile Leu Glu Asp Lys Val Lys Asn Phe Tyr Thr Arg Leu
1955 1960 1965

Pro Phe Gln Lys Leu Met Gly Ile Ser Ile Arg Asn Lys Val Pro
1970 1975 1980

Met Ser Glu Lys Ser Ile Ser Asn Gly Phe Phe Glu Cys Glu Arg

1985 1990 1995

Arg Cys Asp Ala Asp Pro Cys Cys Thr Gly Phe Gly Phe Leu Asn
2000 2005 2010

Val Ser Gln Leu Lys Gly Gly Glu Val Thr Cys Leu Thr Leu Asn
2015 2020 2025

Ser Leu Gly Ile Gln Met Cys Ser Glu Glu Asn Gly Gly Ala Trp
2030 2035 2040

Arg Ile Leu Asp Cys Gly Ser Pro Asp Ile Glu Val His Thr Tyr
2045 2050 2055

Pro Phe Gly Trp Tyr Gln Lys Pro Ile Ala Gln Asn Asn Ala Pro
2060 2065 2070

Ser Phe Cys Pro Leu Val Val Leu Pro Ser Leu Thr Glu Lys Val
2075 2080 2085

Ser Leu Asp Ser Trp Gln Ser Leu Ala Leu Ser Ser Val Val Val
2090 2095 2100

Asp Pro Ser Ile Arg His Phe Asp Val Ala His Val Ser Thr Ala
2105 2110 2115

Ala Thr Ser Asn Phe Ser Ala Val Arg Asp Leu Cys Leu Ser Glu
2120 2125 2130

Cys Ser Gln His Glu Ala Cys Leu Ile Thr Thr Leu Gln Thr Gln
2135 2140 2145

Pro Gly Ala Val Arg Cys Met Phe Tyr Ala Asp Thr Gln Ser Cys
2150 2155 2160

Thr His Ser Leu Gln Gly Gln Asn Cys Arg Leu Leu Leu Arg Glu
2165 2170 2175

Glu Ala Thr His Ile Tyr Arg Lys Pro Gly Ile Ser Leu Leu Ser
2180 2185 2190

Tyr Glu Ala Ser Val Pro Ser Val Pro Ile Ser Thr His Gly Arg
2195 2200 2205

Leu Leu Gly Arg Ser Gln Ala Ile Gln Val Gly Thr Ser Trp Lys
2210 2215 2220

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Gln Val  Asp Gln Phe Leu Gly  Val Pro Tyr Ala Ala  Pro Pro Leu
    2225                 2230                 2235

Ala Glu  Arg Arg Phe Gln Ala  Pro Glu Pro Leu Asn  Trp Thr Gly
    2240                 2245                 2250

Ser Trp  Asp Ala Ser Lys Pro  Arg Ala Ser Cys Trp  Gln Pro Gly
    2255                 2260                 2265

Thr Arg  Thr Ser Thr Ser Pro  Gly Val Ser Glu Asp  Cys Leu Tyr
    2270                 2275                 2280

Leu Asn  Val Phe Ile Pro Gln  Asn Val Ala Pro Asn  Ala Ser Val
    2285                 2290                 2295

Leu Val  Phe Phe His Asn Thr  Met Asp Arg Glu Glu  Ser Glu Gly
    2300                 2305                 2310

Trp Pro  Ala Ile Asp Gly Ser  Phe Leu Ala Ala Val  Gly Asn Leu
    2315                 2320                 2325

Ile Val  Val Thr Ala Ser Tyr  Arg Val Gly Val Phe  Gly Phe Leu
    2330                 2335                 2340

Ser Ser  Gly Ser Gly Glu Val  Ser Gly Asn Trp Gly  Leu Leu Asp
    2345                 2350                 2355

Gln Val  Ala Ala Leu Thr Trp  Val Gln Thr His Ile  Arg Gly Phe
    2360                 2365                 2370

Gly Gly  Asp Pro Arg Arg Val  Ser Leu Ala Ala Asp  Arg Gly Gly
    2375                 2380                 2385

Ala Asp  Val Ala Ser Ile His  Leu Leu Thr Ala Arg  Ala Thr Asn
    2390                 2395                 2400

Ser Gln  Leu Phe Arg Arg Ala  Val Leu Met Gly Gly  Ser Ala Leu
    2405                 2410                 2415

Ser Pro  Ala Ala Val Ile Ser  His Glu Arg Ala Gln  Gln Gln Ala
    2420                 2425                 2430

Ile Ala  Leu Ala Lys Glu Val  Ser Cys Pro Met Ser  Ser Ser Gln
    2435                 2440                 2445

Glu Val  Val Ser Cys Leu Arg  Gln Lys Pro Ala Asn  Val Leu Asn
    2450                 2455                 2460
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Asp Ala Gln Thr Lys Leu Leu Ala Val Ser Gly Pro Phe His Tyr
2465 2470 2475

Trp Gly Pro Val Ile Asp Gly His Phe Leu Arg Glu Pro Pro Ala
2480 2485 2490

Arg Ala Leu Lys Arg Ser Leu Xaa Val Glu Val Asp Leu Leu Ile
2495 2500 2505

Gly Ser Ser Gln Asp Asp Gly Leu Ile Asn Arg Ala Lys Ala Val
2510 2515 2520

Lys Gln Phe Glu Glu Ser Gln Gly Arg Thr Ser Ser Lys Thr Ala
2525 2530 2535

Phe Tyr Gln Ala Leu Gln Asn Ser Leu Gly Gly Glu Asp Ser Asp
2540 2545 2550

Ala Arg Val Glu Ala Ala Ala Thr Trp Tyr Tyr Ser Leu Glu His
2555 2560 2565

Ser Thr Asp Asp Tyr Ala Ser Phe Ser Arg Ala Leu Glu Asn Ala
2570 2575 2580

Thr Arg Asp Tyr Phe Ile Ile Cys Pro Ile Ile Asp Met Ala Ser
2585 2590 2595

Ala Trp Ala Lys Arg Ala Arg Gly Asn Val Phe Met Tyr His Ala
2600 2605 2610

Pro Glu Asn Tyr Gly His Gly Ser Leu Glu Leu Leu Ala Asp Val
2615 2620 2625

Gln Phe Ala Leu Gly Leu Pro Phe Tyr Pro Ala Tyr Glu Gly Gln
2630 2635 2640

Phe Ser Leu Glu Glu Lys Ser Leu Ser Leu Lys Ile Met Gln Tyr
2645 2650 2655

Phe Ser His Phe Ile Arg Ser Gly Asn Pro Asn Tyr Pro Tyr Glu
2660 2665 2670

Phe Ser Arg Lys Val Pro Thr Phe Ala Thr Pro Trp Pro Asp Phe
2675 2680 2685

Val Pro Arg Ala Gly Gly Glu Asn Tyr Lys Glu Phe Ser Glu Leu

2690 2695 2700

Leu Pro Asn Arg Gln Gly Leu Lys Lys Ala Asp Cys Ser Phe Trp
2705 2710 2715

Ser Lys Tyr Ile Ser Ser Leu Lys Thr Ser Ala Asp Gly Ala Lys
2720 2725 2730

Gly Gly Gln Ser Ala Glu Ser Glu Glu Glu Glu Leu Thr Ala Gly
2735 2740 2745

Ser Gly Leu Arg Glu Asp Leu Leu Ser Leu Gln Glu Pro Gly Ser
2750 2755 2760

Lys Thr Tyr Ser Lys
2765

<210> 73
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens carcinoembryonic antigen

<400> 73

Thr Ile Ser Pro Leu Asn Thr Ser Tyr Lys
1 5 10

<210> 74
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens carcinoembryonic antigen

<400> 74

Arg Thr Leu Thr Leu Leu Ser Val Thr Arg
1 5 10

<210> 75
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens carcinoembryonic antigen

<400> 75

Ile Val Pro Ser Tyr Thr Tyr Tyr Arg
1 5

<210> 76
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens carcinoembryonic antigen

<400> 76

Arg Thr Leu Thr Leu Phe Asn Val Thr Arg
1 5 10

<210> 77
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens carcinoembryonic antigen

<400> 77

His Thr Gln Val Leu Phe Ile Ala Lys
1 5

<210> 78
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens carcinoembryonic antigen

<400> 78

Phe Val Ser Asn Leu Ala Thr Gly Arg
1 5

<210> 79
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

<400> 79

Ser Ser Phe Thr Thr Ile Asn Lys

1 5

<210> 80
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

<400> 80

Thr Thr Ile Asn Tyr Thr Leu Trp Arg
1 5

<210> 81
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

<400> 81

Ser Met Leu Glu Val Phe Glu Gly Lys
1 5

<210> 82
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

<400> 82

Ser Val Phe Ala His Pro Arg Lys
1 5

<210> 83
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

<400> 83

Ile Val Tyr Pro Pro Leu His Glu Arg
1 5

<210> 84
<211> 9
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

<400> 84

Tyr Val Phe Pro Val Ile Phe Ser Lys
1 5

<210> 85
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

<400> 85

Ser Val Leu Glu Val Phe Glu Gly Lys
1 5

<210> 86
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

<400> 86

Leu Val His Phe Leu Leu Leu Lys Lys
1 5

<210> 87
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens Her2/neu

<400> 87

Val Val Phe Gly Ile Leu Ile Lys Arg
1 5

<210> 88
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens Her2/neu

<400> 88

Lys Ile Arg Lys Tyr Thr Met Arg Arg
1 5

<210> 89
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens Her2/neu

<400> 89

Val Leu Arg Glu Asn Thr Ser Pro Lys
1 5

<210> 90
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens Her2/neu

<400> 90

Leu Val Lys Ser Pro Asn His Val Lys
1 5

<210> 91
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens Her2/neu

<400> 91

Lys Val Thr Asp Phe Gly Leu Ala Arg
1 5

<210> 92
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens Her2/neu

<400> 92

Met Ala Leu Glu Ser Ile Leu Arg Arg
1 5

<210> 93
<211> 10

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens Her2/neu

<400> 93

Leu Val Ser Glu Phe Ser Arg Met Ala Arg
1 5 10

<210> 94
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens Her2/neu

<400> 94

Ala Ser Pro Leu Asp Ser Thr Phe Tyr Arg
1 5 10

<210> 95
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens p53

<400> 95

Lys Thr Tyr Gln Gly Ser Tyr Gly Phe Lys
1 5 10

<210> 96
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens p53

<400> 96

Cys Thr Tyr Ser Pro Ala Leu Asn Lys
1 5

<210> 97
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens p53

<400> 97

Gly Thr Arg Val Arg Ala Met Ala Ile Tyr Lys
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<210> 98
<211> 9
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<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens p53

<400> 98

Arg Val Arg Ala Met Ala Ile Tyr Arg
1 5

<210> 99
<211> 8
<212> PRT
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<220>
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<400> 99

Arg Val Cys Ala Cys Pro Gly Arg
1 5

<210> 100
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 100

Ile Tyr Pro Asn Ala Ser Leu Leu Ile
1 5

<210> 101
<211> 9
<212> PRT
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<220>
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<400> 101

Leu Tyr Gly Pro Asp Ala Pro Thr Ile
1 5

<210> 102
<211> 10
<212> PRT
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<220>
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<400> 102

Gln Tyr Ser Trp Phe Val Asn Gly Thr Phe
1 5 10

<210> 103
<211> 9
<212> PRT
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<220>
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<400> 103

Val Tyr Ala Glu Pro Pro Lys Pro Phe
1 5

<210> 104
<211> 11
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<220>
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<400> 104

Thr Tyr Leu Trp Trp Val Asn Asn Gln Ser Leu
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<210> 105
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<220>
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Tyr Tyr Arg Pro Gly Val Asn Leu Ser Phe
1 5 10

<210> 106

<211> 10
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<220>
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<400> 106

Gln Tyr Ser Trp Leu Ile Asp Gly Asn Phe
1 5 10

<210> 107
<211> 11
<212> PRT
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<220>
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<400> 107

Thr Tyr Leu Trp Trp Val Asn Gly Gln Ser Leu
1 5 10

<210> 108
<211> 9
<212> PRT
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<220>
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<400> 108

Leu Tyr Gly Pro Asp Thr Pro Ile Ile
1 5

<210> 109
<211> 10
<212> PRT
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<220>
<223> Synthetic peptide derived from Homo sapiens carcinoembryonic antigen

<400> 109

Ser Tyr Leu Ser Gly Ala Asn Leu Asn Phe
1 5 10

<210> 110
<211> 9
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic peptide derived from Homo sapiens carcinoembryonic antigen

<400> 110

Thr Tyr Ala Cys Phe Val Ser Asn Leu
1 5

<210> 111
<211> 9
<212> PRT
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<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

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Met Tyr Pro Asp Leu Glu Ser Glu Phe
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<210> 112
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<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

<400> 112

Leu Tyr Ile Leu Val Thr Cys Leu Gly Phe
1 5 10

<210> 113
<211> 9
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<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

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Val Met Pro Lys Thr Gly Leu Leu Ile
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<210> 114
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<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

<400> 114

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<210> 115
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<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

<400> 115

Ser Tyr Val Lys Val Leu His His Thr Phe
1 5 10

<210> 116
<211> 9
<212> PRT
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<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

<400> 116

Asn Trp Gln Tyr Phe Phe Pro Val Ile
1 5

<210> 117
<211> 10
<212> PRT
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<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

<400> 117

Leu Tyr Ile Phe Ala Thr Cys Leu Gly Phe
1 5 10

<210> 118
<211> 9
<212> PRT
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<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

<400> 118

Ile Met Pro Lys Ala Gly Leu Leu Ile
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<210> 119
<211> 10
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<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

<400> 119

Ser Tyr Pro Pro Leu His Glu Trp Val Leu
1 5 10

<210> 120
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<220>
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<400> 120

Pro Tyr Val Ser Arg Leu Leu Gly Phe
1 5

<210> 121
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<400> 121

Ser Tyr Gly Val Thr Val Trp Glu Phe
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<210> 122
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<400> 122

Val Tyr Met Ile Met Val Lys Cys Trp Met Ile
1 5 10

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<220>

<223> Synthetic peptide derived from Homo sapiens Her2/neu

<400> 123

Arg Tyr Arg Glu Leu Val Ser Glu Phe
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<210> 124
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<220>
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<400> 124

Thr Tyr Gln Gly Ser Tyr Gly Phe Arg Leu
1 5 10

<210> 125
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<220>
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<400> 125

Thr Tyr Gln Gly Ser Tyr Gly Phe Arg Phe
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<400> 126

Thr Tyr Ser Pro Ala Leu Asn Lys Met Phe
1 5 10

<210> 127
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<400> 127

Arg Ser Asp Ser Val Ile Leu Asn Val Leu Tyr

1 5 10

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<400> 128

Ile Thr Asp Asn Asn Ser Gly Ser Tyr
1 5

<210> 129
<211> 11
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<220>
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<400> 129

His Ser Asp Pro Val Ile Leu Asn Val Leu Tyr
1 5 10

<210> 130
<211> 10
<212> PRT
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<220>
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<400> 130

Pro Thr Asp Ser Pro Ser Tyr Thr Tyr Tyr
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<210> 131
<211> 9
<212> PRT
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<220>
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<400> 131

Ala Ala Asp Asn Pro Pro Ala Gln Tyr
1 5

<210> 132
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<220>
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<400> 132

Ile Thr Asp Lys Asn Ser Gly Leu Tyr
1 5

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<220>
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<400> 133

Arg Ser Asp Pro Val Thr Leu Asp Val Leu Tyr
1 5 10

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<220>
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<400> 134

His Ser Ala Ser Asn Pro Ser Pro Gln Tyr
1 5 10

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<400> 135

Val Met Asp Gly Val Gly Ser Pro Tyr
1 5

<210> 136
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<400> 136

Cys Thr Gln Ile Ala Lys Gly Met Ser Tyr
1 5 10

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<211> 9
<212> PRT
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<220>
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<400> 137

Leu Leu Asp Ile Asp Glu Thr Glu Tyr
1 5

<210> 138
<211> 10
<212> PRT
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<400> 138

Phe Thr His Gln Ser Asp Val Trp Ser Tyr
1 5 10

<210> 139
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<212> PRT
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<400> 139

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1 5 10

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<400> 140

Met Thr Asp Leu Val Asp Ala Glu Glu Tyr
1 5 10

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<400> 141

Leu Thr Asp Ser Pro Gln Pro Glu Tyr
1 5

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<220>
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<400> 142

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1 5 10

<210> 143
<211> 10
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<400> 143

Gly Thr Asp Thr Ala Glu Asn Pro Glu Tyr
1 5 10

<210> 144
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<212> PRT
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<220>
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<400> 144

Ala Ser Asp Phe Ser Thr Thr Ile Asn Tyr
1 5 10

<210> 145
<211> 8

<212> PRT
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<220>
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<400> 145

Val Thr Asp Leu Gly Leu Ser Tyr
1 5

<210> 146
<211> 9
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<220>
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<400> 146

Met Gln Asp Leu Val Gln Glu Asn Tyr
1 5

<210> 147
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<213> Artificial Sequence

<220>
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<400> 147

Ala Ser Ser Leu Pro Thr Thr Met Asn Tyr
1 5 10

<210> 148
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<220>
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<400> 148

Gly Thr Val Val Gly Asn Trp Gln Tyr
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<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

<400> 149

Glu Val Asp Pro Ile Gly His Leu Tyr
1 5

<210> 150
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<220>
<223> Synthetic peptide derived from Homo sapiens melanoma antigens

<400> 150

Leu Thr Asp His Phe Val Gln Glu Asn Tyr
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<220>
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<400> 151

Ile Thr Gly Gly Pro His Ile Ser Tyr
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<210> 152
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<220>
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<400> 152

Pro Thr Gln Lys Thr Tyr Gln Gly Ser Tyr
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<210> 153
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<220>
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<400> 153

Gly Thr Asp Lys Ser Val Thr Cys Thr Tyr
1 5 10

<210> 154
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<400> 154

Arg Val Asp Gly Asn Leu Arg Val Glu Tyr
1 5 10

<210> 155
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<220>
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<400> 155

Gly Ser Asp Cys Thr Thr Ile His Tyr Asn Tyr
1 5 10

<210> 156
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<220>
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<400> 156

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Val Pro Gly Ser Arg Gly Val Pro Ile Ser His Leu Asp Ile Leu Lys
20 25 30

Lys Leu Ser Glu Tyr Leu Gln Leu Val Gly Ala Ala Ala Ile Ser Pro
35 40 45

Ser Tyr Thr Tyr Tyr Arg Lys Ala Ala Ala Thr Tyr Ala Cys Phe Val
50 55 60

Ser Asn Leu Lys Val Thr Asp Phe Gly Leu Ala Arg Gly Ala Ala Ala
65 70 75 80

His Leu Phe Gly Tyr Ser Ile Tyr Lys Asn Ala Gln Tyr Ser Trp Phe
85 90 95

Val Asn Gly Thr Phe Lys Ala Ala Ala Lys Val Phe Gly Ser Leu Ala
100 105 110

Phe Val Asn Ala Ala Ala Pro Tyr Val Ser Arg Leu Leu Gly Ile Asn
115 120 125

Ile Met Ile Gly His Leu Val Gly Val Asn Leu Leu Thr Phe Trp Asn
130 135 140

Pro Pro Val Ile Val Tyr Pro Pro Leu His Glu Arg Asn Ala Ala Ala
145 150 155 160

Glu Tyr Leu Gln Leu Met Phe Gly Ile Asn Ala Ile Met Pro Lys Ala
165 170 175

Gly Leu Leu Ile Asn Lys Thr Tyr Gln Gly Ser Tyr Gly Phe Lys Lys
180 185 190

Ala Ala Ala Arg Val Arg Ala Met Ala Ile Tyr Arg Asn Ala Ala Ala
195 200 205

Arg Tyr Ala Arg Asp Pro Gln Arg Phe Gly Ala Ala Ala Lys Leu Cys
210 215 220

Pro Val Gln Leu Trp Val Asn Ala Ser Met Pro Pro Pro Gly Thr Arg
225 230 235 240

Val Gly Ala Ala Ala Val Val Leu Gly Val Val Phe Gly Ile Ala Lys
245 250 255

Phe Val Ala Ala Trp Thr Leu Lys Ala Ala Ala Lys Val Ala Glu Ile
260 265 270

Val His Phe Leu Asn Thr Tyr Ser Pro Ala Leu Asn Lys Met Phe Lys
275 280 285

Ala Ala Ser Tyr Gly Phe Arg Leu Gly Phe Phe Lys Ala Ala Ala Ser
290 295 300

Ser Phe Ser Thr Thr Ile Asn Lys Lys Ala Ala Ala Val Val Phe Gly
305 310 315 320

Ile Leu Ile Lys Arg
325

<210> 157
<211> 326

<212> PRT
<213> Unknown

<220>
<223> Polypeptide 2

<400> 157

Met Gly Met Gln Val Gln Ile Gln Ser Leu Phe Leu Leu Leu Leu Trp
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Val Pro Gly Ser Arg Gly Ile Val Tyr Pro Pro Leu His Glu Arg Asn
20 25 30

Ala Ala Ala Glu Tyr Leu Gln Leu Leu Phe Gly Ile Asn Ala Ile Met
35 40 45

Pro Lys Ala Gly Leu Leu Ile Asn Lys Thr Tyr Gln Gly Ser Tyr Gly
50 55 60

Phe Lys Lys Ala Ala Ala Arg Val Arg Ala Met Ala Ile Tyr Arg Asn
65 70 75 80

Ala Ala Ala Arg Tyr Ala Arg Asp Pro Gln Arg Phe Gly Ala Ala Ala
85 90 95

Lys Leu Cys Pro Val Gln Leu Trp Val Asn Ala Ser Met Pro Pro Pro
100 105 110

Gly Thr Arg Val Gly Ala Ala Ala Val Val Leu Gly Val Val Phe Gly
115 120 125

Ile Ala Lys Phe Val Ala Ala Trp Thr Leu Lys Ala Ala Ala Lys Val
130 135 140

Ala Glu Leu Val Trp Phe Leu Asn Ala Ala Ala Thr Tyr Ser Pro Ala
145 150 155 160

Leu Asn Lys Met Phe Lys Ala Ala Ser Tyr Gly Phe Arg Leu Gly Phe
165 170 175

Phe Lys Ala Ala Ala Ser Ser Phe Ser Thr Thr Ile Asn Lys Lys Ala
180 185 190

Ala Ala Val Val Phe Gly Ile Leu Ile Lys Arg Val Pro Ile Ser His
195 200 205

Leu Gly Ile Leu Lys Lys Leu Ser Glu Tyr Leu Gln Leu Val Gly Ala
210 215 220

Ala Ala Ile Ser Pro Ser Tyr Thr Tyr Tyr Arg Lys Ala Ala Ala Thr
225 230 235 240

Tyr Ala Cys Phe Val Ser Asn Leu Lys Val Phe Gly Ser Leu Ala Phe
245 250 255

Val Asn Ala Ala Ala Pro Tyr Val Ser Arg Leu Leu Gly Ile Asn Ala
260 265 270

His Leu Phe Gly Tyr Ser Asp Tyr Lys Asn Ala Gln Tyr Ser Trp Phe
275 280 285

Val Asn Gly Thr Phe Lys Ala Ala Ala Lys Val Thr Asp Phe Gly Leu
290 295 300

Ala Arg Asn Ile Met Met Gly His Leu Val Gly Val Asn Leu Leu Thr
305 310 315 320

Phe Trp Asn Pro Pro Val
325

<210> 158
<211> 331
<212> PRT
<213> Unknown

<220>
<223> Polypeptide 3

<400> 158

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Val Pro Gly Ser Arg Gly Thr Tyr Ser Pro Ala Leu Asn Lys Met Phe
20 25 30

Lys Ala Ala Ser Tyr Gly Phe Arg Leu Gly Phe Phe Lys Ala Ala Ala
35 40 45

Ser Ser Phe Ser Thr Thr Ile Asn Lys Lys Ala Ala Ala Val Val Phe
50 55 60

Gly Ile Leu Ile Lys Arg Asn Ala Ala Ala Ala Lys Phe Val Ala Ala
65 70 75 80

Trp Thr Leu Lys Ala Ala Ala Lys Val Ala Glu Ile Val His Phe Leu
85 90 95

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Lys Val Thr Asp Phe Gly Leu Ala Arg Gly Ala Ala Ala His Leu Phe
            100                 105                 110

Pro Tyr Ser Trp Tyr Lys Asn Ala Thr Tyr Ala Cys Phe Val Ser Asn
        115                 120                 125

Leu Lys Ala Ala Ala Val Pro Ile Ser His Leu Glu Ile Leu Lys Lys
    130                 135                 140

Leu Ser Glu Tyr Leu Gln Leu Val Gly Ala Ala Ala Ile Ser Pro Ser
145                 150                 155                 160

Tyr Thr Tyr Tyr Arg Lys Ala Ala Ala Gln Tyr Ser Trp Phe Val Asn
                165                 170                 175

Gly Thr Phe Lys Ala Ala Ala Lys Val Phe Gly Ser Leu Ala Phe Val
            180                 185                 190

Asn Ala Ala Ala Pro Tyr Val Ser Arg Leu Leu Gly Ile Asn Ile Met
        195                 200                 205

Ile Gly His Leu Val Gly Val Asn Leu Leu Thr Phe Trp Asn Pro Pro
    210                 215                 220

Val Ile Val Tyr Pro Pro Leu His Glu Arg Asn Ala Ala Ala Glu Tyr
225                 230                 235                 240

Leu Gln Leu Met Phe Gly Ile Asn Ser Met Pro Pro Pro Gly Thr Arg
                245                 250                 255

Val Gly Ala Ala Ala Val Val Leu Gly Val Val Phe Gly Ile Asn Ala
            260                 265                 270

Ile Met Pro Lys Ala Gly Leu Leu Ile Asn Lys Thr Tyr Gln Gly Ser
        275                 280                 285

Tyr Gly Phe Lys Lys Ala Ala Ala Arg Val Arg Ala Met Ala Ile Tyr
    290                 295                 300

Arg Asn Ala Ala Ala Arg Tyr Ala Arg Asp Pro Gln Arg Phe Gly Ala
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Ala Ala Lys Leu Cys Pro Val Gln Leu Trp Val
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<211> 978

<212> DNA
<213> Unknown

<220>
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gtcggcgctg cagctattag ccctagctac acttattatc ggaaggctgc tgctacctat 180

gcctgtttcg tgtctaatct caaagtcaca gacttcgggc tcgcaagagg ggctgccgct 240

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ttcaaagctg cagccaaggt cttcggcagc ctggcatttg tcaacgccgc tgctccctac 360

gtgagccggc tcctcgggat taatattatg atcggccacc tggtgggagt gaatctgctc 420

acattttgga accctccagt gatcgtgtac ccacctctcc atgaaaggaa cgccgcagcc 480

gaatatctgc agctgatgtt cggcatcaat gccattatgc ctaaagccgg actgctgatc 540

aacaagactt accagggctc ttacggcttc aagaaggctg cagcccgcgt cagagccatg 600

gctatctacc gcaacgccgc cgctcggtac gccagggacc cccagcgctt tggggctgcc 660

gccaagctgt gcccagtgca gctgtgggtg aacgcttcta tgccccctcc aggcacaaga 720

gtgggagccg ctgctgtcgt gctgggagtc gtgttcggca tcgcaaagtt tgtggccgcc 780

tggaccctca aggcagcagc aaaagtcgca gagattgtgc actttctgaa cacttactcc 840

cccgcactga acaaaatgtt taaagccgca tcctatggct tcaggctggg gttctttaag 900

gccgccgcaa gctccttctc taccacaatc aataagaagg ccgctgccgt ggtgttcgga 960

atcctcatca aaagatag 978

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<212> DNA
<213> Unknown

<220>
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ctgttcggca ttaacgccat tatgcctaaa gcaggcctgc tcatcaacaa aacttaccag 180

ggaagctatg ggttcaagaa ggcagctgca agagtcaggg ccatggccat ctatcggaat 240

gctgcagcac gctatgccag ggatcctcaa aggtttgggg ccgccgccaa gctctgtccc 300

gtgcaactct gggtcaatgc ctccatgcct ccacccggaa caagagtcgg agccgccgcc 360

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gctgctaagg tcgccgaact ggtgtggttc ctgaacgctg ccgcaacata ctcccctgct 480

ctcaacaaaa tgtttaaggc tgcctcttac ggctttagac tgggattttt caaggcagct 540

gcctctagct tctctacaac tatcaataaa aaggccgcag ccgtcgtgtt cgggatcctg 600

atcaaacggg tgccaatcag ccatctcggc atcctgaaga aactgtctga gtacctgcag 660

ctggtggggg ctgccgctat ctctccaagc tacacctact atagaaaggc agctgctacc 720

tacgcttgct tcgtgagcaa tctgaaagtg tttggctccc tggcattcgt caacgcagct 780

gccccatacg tgtcccgcct cctgggaatt aacgctcacc tgtttggata tagcgactat 840

aagaatgccc agtactcctg gttcgtgaac ggcaccttca aggcagccgc aaaggtgacc 900

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<211> 996
<212> DNA
<213> Unknown

<220>
<223> Polynucleotide 3

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gcagtggtct ttgggatcct catcaaaagg aacgcagccg cagctaagtt cgtcgctgct 240

tggaccctga aagccgccgc caaagtcgct gaaatcgtcc atttcctcaa ggtgacagat 300

tttggactgg ctagaggcgc cgccgctcac ctgttccctt attcctggta caaaaacgcc 360

acctacgctt gtttcgtgag caacctgaag gctgccgcag tgccaatctc ccatctcgag 420

atcctgaaga aactgtctga gtacctgcag ctcgtcggcg ccgccgcaat ttctccctct 480

tacacttact atcgcaaagc tgccgctcaa tacagctggt ttgtgaacgg aactttcaag 540

gctgccgcta aggtgttcgg atccctggct ttcgtgaatg ccgccgcccc ctatgtgagc 600

cggctgctgg gaattaatat tatgattggc cacctggtcg gagtgaacct gctgacattc 660

tggaatcctc ctgtgattgt ctacccacct ctgcacgaaa gaaacgccgc cgccgagtat 720

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gccgtcgtcc tgggcgtggt gttcgggatc aacgcaatca tgccaaaggc cgggctgctg 840

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